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USDA ANNOUNCES PREVAILING WORLD MARKET PRICE FOR UPLAND COTTON

WASHINGTON, May 18—Under Secretary of Agriculture Richard T. Crowder today announced the prevailing world market price, adjusted to U.S. quality and location (adjusted world price), for Strict Low Middling (SLM) 1-1/16 inch (micronaire 3.5-4.9) upland cotton (base quality) and the coarse count adjustment in effect from 12:01 a.m. Friday, May 19, through midnight Thursday, May 25.

Since the Adjusted World Price (AWP) is above the 1987 crop and 1988 crop base quality loan rates of 52.25 and 51.80 cents per pound, respectively, the loan repayment rate for 1987 crop and 1988 crop upland cotton during this period is equal to the respective loan rates for the specific quality and location.

Because the loan repayment rate for 1988 crop upland cotton in effect during this period is above the established loan rate, loan deficiency payments are not available for 1988 crop upland cotton sold during this period.

The AWP will continue to be used to determine the value of upland cotton that is obtained in exchange for commodity certificates.

This period represents Week 5 of the 6-week transition period from using current shipment prices to using forward shipment prices in the AWP calculation. The procedure was adopted to avoid a dramatic change in the AWP that could occur with no transition period, due to differences between new and old crop price quotes.

For Week 5 and Week 6, the Northern Europe price = (Northern Europe current price) + (2 x Northern Europe forward price)/3. Similarly, the Northern Europe coarse count price (Northern Europe coarse count current price) + (2 x Northern Europe coarse count forward price)/3. In calculating the adjustment to average U.S. spot market location, Thursday's current shipment prices for U.S. Memphis territory and the California/Arizona territory as quoted for Middling 1-3/32 inch cotton C.I.F. northern Europe were used.

Based on data for the week ending May 18, the AWP for upland cotton and the coarse count adjustment are determined as follows:

Adjusted World Price

Northern Europe Price 76.44

Adjustments:

Average U.S. spot market location 12.05

SLM 1-1/16 inch cotton 2.00

Average U.S. location 0.42

Sum of Adjustments -14.47

ADJUSTED WORLD PRICE 61.97 cents/lb.

Coarse Count Adjustment

Northern Europe Price 76.44

Northern Europe Coarse Count Price -71.38

5.06

Adjustment to SLM 1-inch cotton -4.15

COARSE COUNT ADJUSTMENT 0.91 cents/lb.

The next AWP and coarse count adjustment announcement will be made on May 25.

Charles Cunningham (202) 447-7954

#

USDA ANNOUNCES 1989 PRICE SUPPORT LEVEL FOR FIVE KINDS OF TOBACCO

WASHINGTON, May 18—The U.S. Department of Agriculture today announced 1989 price support levels for five kinds of tobacco.

The 1988 price support levels are included in the following table for comparison:

	1989 Support Level	1988 Support Level
	<i>(dollars per pound)</i>	
Fire-cured, type 21	1.191	1.171
Fire-cured, types 22-23	1.226	1.213
Dark air-cured, types 35-36	1.044	1.032
Sun cured, type 37	1.052	1.034
Cigar binder and filler, types 42-44, 54-55	.909	.895

The levels for 1989-crop Virginia fire-cured, type 21, Virginia sun-cured, type 37, and cigar binder and Ohio filler, types 42-44, 54-55, tobaccos are about 1.6 percent higher than the 1988-crop price support levels. The levels for 1989-crop Kentucky-Tennessee fire-cured, types 22-23, and dark air-cured, types 35-36, tobaccos are 1.1 percent higher.

The price support levels were reduced by 1.4 percent from the amount determined under the Agricultural Act of 1949, as amended. These reductions were made in accordance with the Omnibus Budget Reconciliation Act of 1987.

The increases between 1989 and 1988 support levels for Kentucky-Tennessee fire-cured, types 22-23, and dark air-cured, types 35-36, tobaccos were limited to 65 percent of the formula amount because of excess supplies in certain grades.

The cooperative marketing associations, through which price support is made available to eligible producers, are authorized to request a reduction in the price support level to improve the marketability of the tobacco.

USDA's Commodity Credit Corporation will establish individual grade loan rates before the marketing season begins.

Bruce Merkle (202) 447-6787.

#

NEW SCIENTISTS ENCOURAGED TO JOIN USDA FOR HIGH-TECH RESEARCH

WASHINGTON, May 19—The U.S. Department of Agriculture is looking for 100 new scientists to hire as research associates in such areas as food safety, groundwater quality and genetic engineering.

“It’s important to bring talented new researchers with fresh ideas into our agency,” said R. Dean Plowman, administrator of USDA’s Agricultural Research Service. This is the tenth year of ARS’ postdoctoral research associate program, he said.

ARS will spend \$4.4 million this year on the program that gives scientists with recent doctoral degrees opportunities for high technology research at its laboratories nationwide. Candidates preferably should have less than three years postdoctoral experience and will be paid a base salary of \$28,852 to \$34,580 for positions that last up to two years.

Plowman said past successes of the program include the development of a technique now being patented to diagnose trichinosis in swine, a method of helping farmers estimate the probability of rainfall, and ways to control toxin-producing fungi during seed germination.

The 100 research associates will work on projects selected from among 470 proposed by ARS scientists.

Richard Whiting, a research food technologist with the Microbial Food and Safety Research Laboratory in Philadelphia, received the agency's T. W. Edminster award for submitting the outstanding proposal. The program began under Edminster, who was ARS administrator from 1971 to 1980.

Whiting is developing a biological control of *Salmonella* bacteria in red meats and poultry. Previous *Salmonella* research emphasized chemical and physical control, but Whiting's proposal is for research to control *Samonella* by beneficial parasitic bacteria.

Other projects include:

- * New methods to eliminate bacterial spoilage in foods;
- * Efficient nitrate use in plants, to prevent groundwater pollution from this breakdown product of fertilizer;
- * Expanded milk tests for all factors that may lead to contamination.
- * A screening process for plant breeders to improve plant performance during drought;
- * Locating natural compounds that will restore normal insulin production in humans; and
- * Genetic development of cotton that is resistant to 2, 4-D. The herbicide is used on other crops, but can drift onto and damage cotton.

Application forms and descriptions of positions are available from Nancy L. Bakes, Personnel Division, Building 003, Room 101, ARS, USDA, Beltsville, Md. 20705 or, by telephone from Kim Conley at (301) 344-2796.

Bruce Kinzel (301) 344-2739

#

FGIS REPORT SHOWS DROUGHT DIDN'T HURT 1988 WHEAT QUALITY

WASHINGTON, May 19—The latest report on the quality of U.S. wheat by the U.S. Department of Agriculture's Federal Grain Inspection Service found overall quality up significantly in the 1988 crop.

In FGIS' 1988 U.S. Wheat Crop Quality Report, 57 percent of the samples in the study earned the U.S. Number 1 grade, up from 49 percent that received the top grade in 1987.

FGIS Administrator W. Kirk Miller said, "Last summer's drought had a devastating effect on the size of the U.S. wheat crop, but did not adversely affect the quality characteristics measured in official inspections. The report also showed that average moisture content was lower and average protein content was higher in 1988 wheat than in 1987."

The report is based on FGIS' annual summary of randomly selected samples of all official inspections performed on new-crop wheat during the first four weeks following the start of local harvests throughout the country. The average quality of these selected samples is indicative of the quality of all wheat officially inspected during the period. The survey of 1988-crop wheat included 11,365 samples.

For more information and copies of the report, including a detailed summary of the study with averages by grade and state, contact Allen A. Atwood, USDA, FGIS, P.O. Box 96454, Washington, D.C. 20090-6454.

Allen A. Atwood (202) 475-3367

#

NEW NUTRIENT COMPOSITION DATA FOR EGGS

The U.S. Department of Agriculture's Human Nutrition Information Service has released updated nutrient composition data for eggs. The new data shows the cholesterol content of eggs to be about 22 percent less than when egg data were last published by USDA in 1976, a change from 274 milligrams to 213 milligrams of cholesterol per large egg.

In 1985, the intake of cholesterol by women 19 to 50 years of age was 280 milligrams per day. The new cholesterol value for eggs would lower this estimate by about 9 percent. Eggs contributed about 42 percent of

women's total cholesterol intake in 1985. Using the new value, this would drop to about 36 percent.

The revised data on cholesterol and other nutrients in eggs are from a study conducted by USDA with a commercial laboratory that analyzed eggs from 122 suppliers in the summer of 1988 and 108 suppliers in the winter of 1989. These suppliers represent over 60 percent of the nation's egg production. According to Ruth H. Matthews, Chief of HNIS' Nutrient Data Research Branch, "The changes in the nutrient data for eggs are explained on the basis of improved and carefully controlled analytical methods; other factors that may have had an impact on the changes include poultry feeding and management practices."

"The updated nutrient data for eggs is part of the Human Nutrition Information Service's on-going responsibility for the continuous monitoring and updating of the data for the nutrient composition of foods in the American diet," says Dr. Robert L. Rizek, director of HNIS' Nutrition Monitoring Division. "There is no fixed timetable for revisions to the published data." Data are published as sections of Agriculture Handbook No. 8. The new data on eggs (see attached sheet) will be included in the 1989 supplement to the Handbook that will be released later this year.

For technical information, contact Ruth H. Matthews, Chief of Nutrient Data Research Branch, Nutrition Monitoring Division, Human Nutrition Information Service, at (301) 436-8491.

Nutrient Content of Edible Portion (50 g) of one Large Egg

Nutrients and units	Handbook No. 8-1 (1989)	Handbook No. 8-1 (1976)
Proximate:		
Water	37.66	37.28
Food energy.....kcal	75	79
.....kJ	313	330
Protein (Nx6.25).....gm	6.25	6.07
Total lipid (fat)	5.01	5.58
Carbohydrate, total	0.61	0.60
Crude fiber	0	0
Ash.....gm	0.47	0.47

Minerals:

Calcium	mg	25	28
Iron	mg	0.72	1.04
Magnesium	mg	5	6
Phosphorus	mg	89	90
Potassium	mg	60	65
Sodium	mg	63	69
Zinc	mg	0.55	0.72
Copper	mg	0.007	—
Manganese	mg	0.012	—

Vitamins:

Ascorbic acid	mg	0	0
Thiamin	mg	0.031	0.044
Riboflavin	mg	0.254	0.150
Niacin	mg	0.037	0.031
Pantothenic acid	mg	0.627	0.864
Vitamin B-6	mg	0.070	0.060
Folacin	mcg	23	32
Vitamin B-12	mcg	0.50	0.773
Vitamin A	RE	95	78
	IU	317	260

Lipids:

Fatty acids:

Saturated, total	gm	1.550	1.67
14:0	gm	0.017	0.02
16:0	gm	1.113	1.23
18:0	gm	0.392	0.43
Monounsaturated, total	gm	1.905	2.23
16:1	gm	0.149	0.19
18:1	gm	1.736	2.04
20:1	gm	0.014	—
Polyunsaturated, total	gm	0.682	0.72
18:2	gm	0.574	0.62
18:3	gm	0.017	0.02
20:4	gm	0.071	0.05
20:5	gm	0.002	—
22:6	gm	0.018	—
Cholesterol	mg	213	274

**Nutrient Content of Edible Portion (50 g) of one Large Egg
(continued)**

Nutrients and units	Handbook No. 8-1 (1989)	Handbook No. 8-1 (1976)
Amino acids:		
Tryptophan	0.076	0.097
Threonine	0.300	0.298
Isoleucine.....	0.341	0.380
Leucine	0.534	0.533
Lysine	0.449	0.410
Methionine	0.195	0.196
Cystine.....	0.145	0.145
Phenylalanine	0.332	0.343
Tyrosine.....	0.255	0.253
Valine	0.381	0.437
Arginine.....	0.375	0.388
Histidine	0.148	0.147
Alanine	0.348	0.354
Aspartic acid	0.628	0.602
Glutamic acid	0.816	0.773
Glycine	0.210	0.202
Proline	0.249	0.241
Serine.....	0.465	0.461

Johna Pierce (301) 436-8617

May 19, 1989

#

USDA INCREASES FEES FOR EGG, POULTRY, AND RABBIT GRADING

WASHINGTON, May 24—The U.S. Department of Agriculture today announced increased fees for certain grading and inspection services for eggs, poultry, and rabbits.

Effective June 1, hourly fees will rise from \$16.16 to 17.80 for resident service (a regular tour of duty at one site); from \$23.20 to \$24.12 for non-resident service (an irregular tour of duty at one or more sites); from \$24.92 to \$25.92 for non-resident grading work on weekends and holidays; and from \$29.32 to \$30.52 for laboratory work.

The administrative charge for the cost of USDA supervision of grading and for other overhead expenses will rise from \$.026 to \$.027 per case of shell eggs and from \$.00026 to \$.00027 per pound of poultry in plants using the resident grading program. Also, the minimum administrative charge for poultry and eggs per billing period will rise from \$130 to \$135 and the maximum charge will rise from \$1,300 to \$1,350. The minimum administrative charge for grading rabbits will rise from \$130 to \$135 per billing period.

Added costs over the past two years justify the increases, said D. Michael Holbrook, an official with USDA's Agricultural Marketing Service. "A major factor affecting those costs is a mandated salary adjustment that became effective in January," Holbrook said. Present fees have been in effect since May 1, 1987.

Grading services administered by USDA are made available upon request from interested parties. The Agricultural Marketing Act of 1946 requires user fees to be reasonable and, as nearly as possible, equal to the cost of the services.

The changes will appear as a final rule in the May 24 Federal Register.

Clarence Steinberg (202) 447-8998

#

U.S. AGRICULTURAL EXPORTS NEAR RECORD LEVEL FOR MARCH

WASHINGTON, May 22—U.S. agricultural exports totaled more than \$4 billion in March—the fourth highest monthly figure on record, Secretary of Agriculture Clayton Yeutter announced today.

The March figure is up 16 percent over February and 21 percent from March 1988. It is the first time since March 1981 that the monthly export figure has exceeded \$4 billion.

Export volume for March registered 15.3 million metric tons, up from 14.9 million tons in March 1988. Grain and feed and livestock products led the way.

"Several factors contributed to the increase," Yeutter said, "including more competitive U.S. prices as a result of the 1985 farm bill, limited supplies from other major exporting countries, growth in the world economy and large grain purchases from major U.S. customers."

Agricultural imports in March totaled \$1.98 billion, leaving a monthly trade surplus of over \$2 billion. This is the first month since March 1984 that the trade surplus has exceeded \$2 billion.

Exports for fiscal 1989 through March totaled \$21.1 billion, up \$3.2 billion or 18 percent over the same period in 1988. This marks the strongest export performance since 1982.

The U.S. Department of Agriculture estimates that fiscal year 1989 exports will total \$38 billion. USDA will issue a new export forecast May 26.

Sally Klusaritz (202) 447-3448

#

USDA TO SURVEY 117,000 FARMERS AND RANCHERS

WASHINGTON, May 23—The U.S. Department of Agriculture will conduct a major survey June 1-15 to assess 1989 crop and livestock production and inventories of the nation's farms and ranches.

The June agricultural survey by USDA's National Agricultural Statistics Service is the first and largest of a series conducted throughout the year. A sample of about 117,000 farmers and ranchers nationwide will provide information to be used in making state, regional and national crop and livestock estimates.

Local interviewers trained by NASS will contact the participants in the survey by telephone or in person.

"Gathering this type of information from producers is the only way to develop reliable crop and livestock estimates for an orderly marketing system," said Rich Allen, chairperson of NASS' Agricultural Statistics Board. "The estimates are a working tool to help farmers and ranchers in

their decisions about production, marketing and investments in their operations."

The survey information and other data are sent from the NASS state offices to USDA headquarters in Washington, D.C., where they are analyzed, and released by the Agricultural Statistics Board. The board maintains strict security to ensure the integrity of the estimates.

The approximately 117,000 farmers and ranchers expected to participate in the survey are selected from 2,158,000 farms nationwide through statistical sampling procedures. The respondents represent a broad cross-section of U.S. agriculture.

To assure a geographic spread of the sample, a portion of those surveyed are selected from specific "segments" or land units in each state. Facts about an individual's farm or ranch are strictly confidential and used only in combination with similar reports from other producers.

The June survey is one of the most important of the many conducted each year by NASS. Other agricultural surveys are scheduled for September, December and March. Objective yield surveys (actual plant counts and measurements) for wheat, corn, soybeans, cotton and rice are conducted near the end of each month throughout the growing season. Separate cattle and sheep inventory surveys are conducted in July and January.

Nearly 300 times a year, NASS issues official state and national estimates of crops, livestock, prices and other measures of the agricultural industry and its many facets.

Larry Beard (202) 447-5394

#

USDA REVISES POLICY FOR CONTROLLING LISTERIA MONOCYTOGENES

WASHINGTON, May 22—The U.S. Department of Agriculture will expand testing for the bacteria Listeria monocytogenes in ready-to-eat meat and poultry products, and strengthen the actions it will take when positive samples are found, according to Dr. Lester M. Crawford, administrator of USDA's Food Safety and Inspection Service.

The new policy will be effective as soon as the revised testing procedures can be implemented, in approximately six weeks.

"The goal of FSIS regulatory policy is to protect the public health based on scientific facts," said Crawford. "On April 14, the Centers for Disease Control confirmed the first case of human listeriosis in the United States caused by meat or poultry—in this case turkey franks. That case led to the voluntary recall by a Texas firm of 1-pound and 10-pound packages of turkey franks distributed nationwide."

"We have responded by intensifying our sampling and compliance policy to ensure that ready-to-eat products contaminated with Listeria monocytogenes do not reach consumers," said Crawford.

Under the revised Listeria monitoring program, FSIS will increase the number of samples tested each year. When a monitoring sample from an intact, retail package is found to contain Listeria the sampled lot will be considered adulterated and recalled from commerce, Crawford said. When a positive result is found in a product that is not available as an intact, retail package, the agency will test a subsequent product from the same plant to verify the problem before considering recall action.

In either case, production and shipment of any product that could be contaminated will be restricted until the agency is sure the problem has been corrected, Crawford said. FSIS will decide whether to take further regulatory action after considering all available information.

Listeria is difficult to control because it can grow slowly on foods under refrigeration, Crawford said. Due to the increasing number of refrigerated ready-to-eat meat and poultry products on the market, this is a primary concern.

The bacteria have the potential to cause serious illness. Those with weakened immune systems such as infants, pregnant women, the elderly, and the chronically ill are particularly vulnerable. Symptoms in newborns include respiratory distress, refusal to drink, and vomiting. The elderly with underlying health problems are most likely to be affected by meningitis or other complications.

However, healthy persons are essentially at little risk from the disease, which can cause flu-like symptoms such as fever, chills, headache and sometimes abdominal pain and diarrhea.

Notice of the policy change is being published in Federal Register May 23. For further information, contact Dr. Marvin Norcross, deputy administrator for science, FSIS, USDA, Washington, D.C. 20250; telephone (202) 447-6495.

FSIS ensures that meat and poultry products are safe, wholesome, and accurately labeled.

Susan Rehe (202) 447-9113

#

USDA ISSUES PERMIT TO FIELD TEST GENETICALLY ALTERED COTTON PLANTS

WASHINGTON, May 24—The U.S. Department of Agriculture is issuing a permit to Calgene, Inc., Davis, Calif., to conduct a field test of cotton plants genetically engineered to tolerate the herbicide bromoxynil.

The field test will be conducted in Washington County, Miss., beginning in late May and extending through the summer. It is the third field trial in the United States involving genetically engineered cotton.

“In greenhouse tests, scientists have found that the genetically altered cotton is tolerant to the herbicide,” said James W. Glosser, administrator for USDA’s Animal and Plant Health Inspection Service. “Field tests are necessary to see if the plant remains herbicide tolerant in a natural setting and to judge other agronomic characteristics, such as yield and fiber quality.”

APHIS has prepared an environmental assessment after reviewing the scientific methods and data involved in this test. “We are satisfied that the tests are well designed and are not environmentally hazardous,” said Glosser.

Copies of the environmental assessment may be obtained by writing to Linda Gordon, USDA, APHIS, BBEP, Room 843A, Federal Building, 6505 Belcrest Road, Hyattsville, Md., 20782.

Anita Brown (301) 436-5931

#

NEWLY IDENTIFIED BRAIN HORMONE MAY DISRUPT MOTH'S MATING

WASHINGTON, May 23—The brain hormone that tells the female corn earworm moth when to produce its sex lure has been identified for the first time, according to a U.S. Department of Agriculture researcher.

The hormone gives scientists "essential knowledge to develop genetically engineered control agents and other means to disrupt mating of corn earworm, fall armyworm, gypsy moth and other moth pests," said entomologist Ashok K. Raina of USDA's Agricultural Research Service in Beltsville, Md.

Other hormones affecting insect metabolism and development have been identified, but Raina said the new one, called PBAN, is the first known to affect insect behavior. PBAN is released from the female corn earworm moth's brain only at night. It sends a message ordering production of a sex attractant chemical, or pheromone, to lure males for mating, he said.

After Raina discovered PBAN—pheromone biosynthesis activating neuropeptide—five years ago, he and a team of researchers from ARS and four other institutions used brains from 20,000 earworms to decode and synthesize the neuropeptide. A neuropeptide is a specialized protein produced in the nervous system and made up of amino acids, the building blocks of all proteins.

"We next have to learn where and how the hormone works in moths so we can manipulate it," said Raina, of the Insect Chemical Ecology Laboratory, located at the Beltsville Agricultural Research Center. He said the scientists now are on the verge of pinpointing mechanisms they have been studying that turn off the hormone.

"If we can identify the genes controlling these mechanisms, it may be possible to insert those genes into a virus that will infect only a target pest," he said. "By blocking the hormone, the genetically engineered virus would prevent female moths from producing pheromones to attract mates."

By injecting synthetic PBAN into a variety of female insects, the scientists found that it caused six other species to produce pheromones: gypsy moth, fall armyworm, European corn borer, tobacco budworm, tobacco hornworm and pickleworm.

PBAN is a unique sequence of 33 amino acids. It is also unusual in that its production in the female corn earworm moth is triggered by environmental factors, such as darkness and natural chemical vapors emitted by corn and other host plants, where mating occurs. Most other insect hormones that have been identified are produced in response to biochemical events within insects, he said.

In the female corn earworm moth, he said, an incredibly small amount of PBAN—one hundred-millionth of a gram—stimulates production of enough pheromone to attract a mate.

Raina did the final purification and identification of the hormone with scientists from the Beltsville center, the University of Maryland, National Institutes of Health, Johns Hopkins University and Applied Biosystems of Foster City, Calif. The research was reported recently in *Science* magazine.

A patent application on synthetic PBAN and its uses has been filed by Raina, chemist Howard Jaffe in the ARS Livestock Insects Laboratory at Beltsville and peptide chemist Thomas Kempe of the University of Maryland.

Dvora Aksler Konstant (301) 344-3108

#

AMERICAN BARNYARD IN FOR CHANGES IN 21ST CENTURY

WASHINGTON, May 24—Cows that fill the American barnyard of the 21st century may not look very different from today's herds, but they could carry genes that give them natural resistance to disease.

At the same time, the next century may see other animal innovations such as chickens living in a closed, disease-free environment, and steers eating crop residues and fibrous plants that, while poorly digested now, by then will have been converted into nutritious feed to support high levels of animal production.

These are predictions from U.S. Department of Agriculture scientists on possible changes in U.S. animal production in the next 25 to 50 years.

"Of course, there are no ironclad guarantees that what the scientists envisioned will become reality," said R. Dean Plowman, administrator of USDA's Agricultural Research Service. "But based on the research they're involved in right now, it's certainly within the realm of probability."

A report on the scientists' predictions appears in the new issue of Agricultural Research magazine. Additional details on the researchers' predictions will appear in the magazine's next issue.

One of the more intriguing prospects is a computerized listing of genetic codes for producing livestock with specific attributes such as disease resistance.

"There are only four letters in the genetic alphabet—A, T, C and G—for four molecules," explained Robert J. Wall, an animal physiologist at ARS' Reproduction Laboratory at Beltsville. "Depending on their sequence, say, ATCCGATCCG, and how long that sequence is, that's the recipe for that gene."

Wall said researchers already have the chemicals represented by A, T, C and G, and also have a machine that can recreate the desired genes. The missing ingredients at this point are the codes themselves.

"We can read the alphabet of specific genes, although only in the last 10 years have we been able to do this with genes from higher organisms," Wall said. "We know the words, but we don't know the syntax of the sentences," he added. "There may be 100 genes involved in eye color. We have to learn not just what they are, but how they work together."

Other possible developments predicted by scientists include:

—Broilers grown in a closed environment with filtered air and fed a pasteurized and semi-liquid diet. The closed setting would eliminate infectious diseases in the flock and would boost animal efficiency since all of the feed eaten by the birds could be used by their bodies for growth instead of some of it being needed for warmth. In addition, the semi-liquid diet would be easier for the birds to digest, according to James W. Deaton, an animal scientist at ARS' South Central Poultry Research Laboratory at Mississippi State, Miss.

—Steers efficiently using forages and other fibrous feedstuffs. Robert R. Oltjen said researchers may find a microorganism that can break down lignin, the binder for woody fibers, or perhaps even borrow a gene from termites and insert it in a microbe that already lives in the rumen of cattle. Oltjen is associate deputy administrator for animal and postharvest sciences on ARS' National Program Staff in Beltsville.

—Breeder hens could produce double their current rate of 140 chicks per year as the poultry industry swings to artificial insemination, Deaton predicted. He also said the industry may use dwarf breeder hens to lower feed costs.

"These advances all could contribute to a more plentiful supply of beef and poultry for American consumers," Plowman noted. "And lower production costs might be translated into lower prices at the grocery store."

Sandy Miller Hays (301) 344-4089

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USDA ANNOUNCES PRELIMINARY RESULTS OF 1989 FARM PROGRAM SIGNUP

WASHINGTON, May 24—Producers have signed contracts to place 168.1 million acres of feed grains, wheat, upland cotton, extra-long staple (ELS) cotton and rice in the 1989 commodity price support and acreage reduction programs, according to a report issued today by the U.S. Department of Agriculture.

Under the contracts 29.2 million of these acres will be idled and placed in a conserving use.

The acreage enrolled in 1989 commodity programs represents 76.3 percent of the 220.3 million acres of total crop acreage bases established for these commodities. For the 1988 programs, 83.4 percent of that year's 225.2 million acres of total crop acreage bases was enrolled and 54.2 million acres were contracted to be placed in conserving use.

This table is a national summary of the enrollment report.

1989 Farm Program Signup

	Effective Base	Enrolled Base	0/92 ARP	Percent 50/92	Percent Enrolled
- - - - - (million acres) - - - - -					
Corn	82.8	66.1	6.3	3.7	79.8
Sorghum	16.3	12.3	1.1	1.7	75.7
Barley	12.4	8.3	.8	1.3	67.1
Oats	7.6	1.7	.1	.2	22.9
Feed Grains	119.1	88.4	8.3	6.9	74.2
Wheat	82.4	63.4	6.1	3.4	77.0

Cotton - Upland	14.6	12.4	3.0	.4	84.9
-ELS	.1	.003	.0001	.0	2.2
Rice	4.1	3.9	.9	.2	94.0
Total	220.3	168.1	18.3	10.9	76.3

Producers who participate in the annual commodity programs agree to reduce their plantings from the established bases by at least 10 percent for wheat, corn, sorghum and barley, 5 percent for oats and ELS cotton and 25 percent for upland cotton and rice.

Participating producers will be eligible for program benefits such as Commodity Credit Corporation commodity price support loans and purchases and deficiency payments. In addition, at the time they enrolled in the programs, wheat and feed grain producers were allowed to request 40 percent and upland cotton and rice producers 30 percent of their projected 1989 deficiency payments. These payments were made in cash. Additional advance deficiency payments of 10 percent will be made available to eligible producers for these crops. Payments were issued after May 15 in commodity certificates.

Signup for the 1989 programs began on Dec. 19, 1988, and ended April 14.

During a special signup period, Dec. 19 through Feb. 3, producers requested authorization to plant 3.5 million acres of soybeans and 353 thousand acres of sunflowers in lieu of their permitted acreage for 1989 wheat, feed grains, cotton and rice. USDA authorized the planting of 80 percent of the soybeans and all of the sunflowers. Planting credit will be given producers for the amount of soybeans and sunflowers they plant on this acreage to protect their program crop acreage base history.

Printed copies of the tables, by commodity and state, the number and percentage of farms and acreage signed up can be obtained from the USDA Office of Information, News Division-Room 403-A, Washington, D.C. 20250. Telephone: (202) 447-9120, ask for press release 651-89.

Robert Feist (202) 447-6789

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YEUTTER ANNOUNCES ADDITIONAL DROUGHT-RELIEF MEASURES FOR LIVESTOCK PRODUCERS

WASHINGTON, May 24—Secretary of Agriculture Clayton Yeutter today announced new measures to help drought-impacted livestock producers throughout the nation's agricultural sector.

"I am encouraged by the rain that has fallen in the Midwestern and Great Plains growing areas in the past week," Yeutter said. "In many places the drought has broken. However, the additional relief actions taken today will help reduce livestock sell-offs in areas where haying and grazing conditions are still not adequate."

In today's announcement, Yeutter declared he will allow state-wide emergency haying and grazing of acreage conservation reserve (ACR) and conservation use (CU) acreage in those states with 75 percent of counties already designated as eligible for those activities. States which meet this criteria as of today are Kansas, Nebraska and Iowa. Other states will be added when they have met the 75-percent county-designated criterion.

Yeutter also relaxed the forage sales policy so producers in eligible counties can sell ACR and CU forage at full market prices instead of at harvest cost recovery, which is current policy.

"Rain is predicted for much of the Midwest and Great Plains areas in the next several days which could prove to be extremely beneficial for those growing areas," Yeutter said. "The USDA Drought Task Force will continue to monitor the weather, crop and livestock situations on a daily basis and forward additional recommendations to me if and when the situation warrants it."

Today's actions follow Yeutter's fact-finding tour of drought-stricken Nebraska growing areas May 20 with Governor Kay Orr and Rep. Virginia Smith (R-Neb.).

Yeutter announced April 26 that USDA would provide for emergency haying and grazing on acreage conservation reserve and conservation use acreage, emergency feed assistance and emergency feed programs, and haying and grazing on FmHA inventory property. He also set up an intra-departmental drought task force headed by Under Secretary for International Affairs and Commodity Programs Richard T. Crowder.

Under programs currently in effect, as of May 24 haying and grazing of acreage conservation reserve and conservation use acreage in the five restricted growing months was underway in 462 counties in 13 states;

haying and grazing of these lands in the seven non-growing months was underway in all counties in 24 states; 157 counties in six states had qualified for the emergency feed program; and 141 counties in five states had qualified for the emergency feed assistance program.

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USDA RESEARCHERS DEPART FRANCE LAB TO HUNT APHID ENEMIES IN U.S.S.R.

WASHINGTON, May 25—A warning to Russian wheat aphids: two researchers from a U.S. Department of Agriculture laboratory in France flew to Moscow this morning on the first leg of an exploration to find natural enemies of these spreading pests of U.S. wheat and barley.

On Monday, insect pathologist Tadeusz Poprawski and entomologist Francis Gruber will begin carrying out new agreements on joint searches, tests and exchanges of biological pest controls between USDA's Agricultural Research Service and the U.S.S.R., said Richard S. Soper. Soper coordinates the agency's biocontrol research from Beltsville, Md.

Poprawski and Gruber will hunt for a variety of Russian wheat aphid enemies—microbial pathogens as well as insect predators and parasites. On June 25, they hope to bring promising candidates back to the ARS European Parasite Laboratory in Beauvois, France, for studies and later shipment to the United States, Poprawski said.

The aphid has spread to 15 states and two Canadian provinces since its discovery in Texas in August 1986. Soper said it cost U.S. farmers an estimated \$123 million in 1988—more than twice the damage in 1987.

“When an aphid begins sucking sap from a wheat or barley leaf, the leaf rolls around it, protecting it from insecticides,” he said. “We hope biological controls can be an effective alternative.”

The researchers are scheduled to arrive Saturday in Kishinev, Moldavia. They and Soviet scientists will look for aphid enemies in the pest's native regions of Moldavia, the Ukraine and the northern Caucasus. The search will start in Kishinev at the new Soviet-American Biological Control Laboratory. The lab is part of the U.S.S.R.'s All-Union Research Institute for Biological Methods of Plant Protection.

"The agreements with the U.S.S.R.—and a similar one signed last November with China—will help our efforts to find alternatives to chemical controls for a variety of plant diseases, weeds and insects," Soper said.

Last week, he said, work under the China agreement began with the arrival of an ARS researcher in Beijing. Yang Shaw-Ming of Frederick, Md., will search Inner Mongolia and other areas for fungi to combat leafy spurge, a deep-rooted weed that invaded the U.S. about 160 years ago. Cattle won't graze it and it crowds out desirable range plants.

Soper said five other ARS researchers and one from the University of Idaho will go to the Soviet Union later this summer to search for or conduct studies of biocontrols for the aphid and grasshoppers along with leafy spurge and knapweed, another serious range weed in this country. The studies will be based at Kishinev and at the Zoological Institute of the U.S.S.R.'s Academy of Sciences in Leningrad, he said.

Jim De Quattro (301) 344-4296

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USDA ANNOUNCES 1989 CROP CORN AND SORGHUM LOAN AND PURCHASE RATES

WASHINGTON, May 25—The U.S. Department of Agriculture today announced county price support loan and purchase rates for the 1989 crops of corn and sorghum.

The national average level of price support is \$1.65 per bushel for corn and \$2.80 per hundredweight for sorghum.

The 1989 crop county price support rates were set under the Agricultural Act of 1949, as amended, and reflect changes in national average levels of price support. Some county rates were adjusted to reflect location and transportation costs and other factors. These adjustments were limited to a two-percent change in addition to the change in the national average levels of price support from the 1988 crop levels.

Copies of the corn and sorghum county price support rate schedules are available from the Cotton, Grain and Rice Price Support Division,

USDA-ASCS, P.O. Box 2415, Washington, D.C. 20013; telephone (202) 447-8701.

Bruce Merkle (202) 447-6787

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USDA ANNOUNCES GRADE LOAN RATES FOR 1989 CROP BURLEY TOBACCO

WASHINGTON, May 25—Loan rates for various grades of 1989 crop burley tobacco, which reflect the national average price support level of \$1.532 per pound, were announced today by the U.S. Department of Agriculture's Commodity Credit Corporation. The rates range from \$0.80 to \$1.68 per pound.

Vern Neppl, acting CCC executive vice president, said the national support level for burley is 3.2 cents per pound more than the price support level for the 1988 crop.

Neppl said the grade loan rates were developed in consultation with burley farm organizations and the two burley loan associations which administer price support programs for burley tobacco.

The tobacco associations deduct \$1 per hundred pounds from the loan advances to help cover overhead costs of the associations, Neppl said.

CCC will not provide loans on tobacco graded N2L, N2R, N2G, "U" (unsound), "W" (wet), "no-G" (no grade) or scrap.

1989-Crop Burley Tobacco Type 31, Price Support Schedule

GRADE	LOAN RATE	LOAN GRADE	LOAN RATE	LOAN GRADE	LOAN RATE
<i>(Dollars Per Hundred Pounds, Farm Sales Weight)</i>					
B1F	168	B3GF	131	T4GR	120
B2F	166	B4GF	128	T5GR	117
B3F	164	B5GF	124		X3F
B4F	162			C1L	167
B5F	160	B3GR	131	C2L	165
		B4GR	126	C3L	163
B2FL	161	B5GR	121	C4L	161
B3FL	159			C5L	156
B4FL	153	T3F	158		X4M
		T4F	151	C1F	168
B1FR	169	T5F	146	C2F	166
B2FR	167			C3F	164
B3FR	165	T3FR	157	C4F	163
B4FR	163	T4FR	151	C5F	159
B5FR	161	T5FR	146		M3F
				C3K	139
B1R	168	T3R	156	C4K	132
B2R	166	T4R	151	C5K	128
B3R	164	T5R	146		M4FR
B4R	162			C3M	150
B5R	159	T4D	139	C4M	143
		T5D	131	C5M	136
B4D	138				M5K
B5D	130	T4K	127	C3V	155
		T5K	123	C4V	149
B3K	139			C5V	143
B4K	135	T4VF	136		N1F
B5K	130	T5VF	129	C4G	127
				C5G	118
B2M	155	T4VR	136		N1G
B3M	152	T5VR	131	X1L	167
B4M	146			X2L	164

B5M	141	T4GF	118	X3L	162
		T5GF	115	X4L	158
B3VF	150			X5L	151
B4VF	144				
B5VF	138				
B3VR	146				
B4VR	143				
B5VR	137				

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Backgrounder

U.S. Department of Agriculture • Office of Information

BACKGROUND INFORMATION ON DROUGHT ASSISTANCE

Here's further background information on programs and terms discussed in today's announcement on drought assistance (USDA News Release number 658-89)

- **Haying and Grazing of Farm Program Acreage (ACR) and (CU)**
To receive government price support benefits, deficiency payments and other benefits, producers of wheat, feed grains, upland and extra long staple cotton and rice must agree to reduce the production of these crops on their farms. This idled acreage generally is devoted to approved conserving uses to protect against erosion. On April 26, as a result of a natural disaster, Secretary Yeutter authorized on a county-by-county basis haying and grazing during restricted five-month periods individually established for all states. Today, the Secretary has authorized state-wide ACR and CU privileges for states with 75 percent of their counties designated eligible for these activities.
- **Relaxation of Forage Sales Policy on ACR and CU Acreage**
Secretary Yeutter today relaxed the forage sales policy on ACR and CU acreage. Producers in counties eligible can sell ACR and CU forage at full market prices instead of harvest cost recovery as the sales price which is current policy.

The following drought relief measures were announced by Secretary Yeutter on April 26:

- **Emergency Feed Program** In 1989, qualifying producers in counties where a livestock emergency has been determined to exist are eligible to receive cost-share assistance for the purchase of livestock feed. USDA's Commodity Credit Corp. may share feed costs for producers who must purchase more than normal amounts of feed for their livestock. The CCC will provide assistance for up to one-half the cost of the purchase fee, including hay, not to exceed 5 cents a pound to cover the producer's feed need or feed loss, whichever is smaller.
- **Emergency Feed Assistance Program** In 1989, qualifying producers in counties in which a livestock emergency has been determined to

exist are eligible to purchase grain from the CCC at 50 percent of the average market price in the county. CCC makes this grain available to the same producers who are also eligible to receive assistance under the Emergency Feed Program.

- **Zero/92 Payments** Under the 1989 wheat, feed grain, upland and extra long staple cotton, and rice programs, participating producers are eligible to receive price support benefits, deficiency payments and other benefits. Deficiency payments are made to producers in the event market prices do not exceed statutory target prices. These payments are based upon the acreage actually planted to these commodities. However, under the 1989 wheat and feed grain programs, producers may receive payments based upon the 1989 projected deficiency payment rates with respect to acreage which is not planted to these crops if the land is devoted to approved conserving uses. The acreage for which a producer may receive these payments may not exceed 92 percent of the farm's wheat and feed grain crop acreage base, respectively. Producers who elect to exercise this option must have enrolled in the 1989 program by April 14, and must designate eligible 0/92 acreage.
- **Failed Acreage** Producers participating in the 1989 program whose program crop fails may replant the failed acreage to another crop and earn any deficiency payments which would have been made with respect to the original crop. If the replanted crop is a program crop, program payments and benefits will not be made with respect to that second crop. Producers who wish to get failed acreage credit must apply in the county ASCS office within 15 days of the crop failure and prior to destruction of the evidence that a crop actually was planted. Determination of whether a crop has failed will be made by the county ASCS committee. Producers also may designate this failed acreage as conserving use (CU) under the 0/92 provisions of the wheat and feed grain programs and receive guaranteed payments in an amount equal to the projected deficiency payment rate.
- **Emergency Credit/FmHA Emergency Loan Program** The secretary of agriculture is authorized to designate a county as a natural disaster area when it is determined that farming, ranching, or aquaculture operations have been substantially impacted by a natural disaster. One of these criteria must be met: at least a 30-percent reduction, countywide, from normal dollar value of all crops; at least a

30-percent reduction, countywide, of a single crop; or qualifying losses suffered by one or more farmers who cannot get credit elsewhere. Emergency loans cannot exceed the actual loss and is capped at \$500,000 per loan. The interest rate is 4.5 percent. To qualify, the farmer must: have a 30-percent or greater loss; be a family-size farm operator; be unable to get credit elsewhere; and have federal crop insurance on the damaged crop, if available.

- **Haying and Grazing on FmHA Inventory Property** The FmHA will sell hay at reasonable cost and take bids for grazing on its inventory property in counties where the state ASCS committee has authorized release of acreage conservation reserve (ACR) and conservation use (CU) acres for haying and grazing.
- **1989 USDA Drought Task Force** Chaired by USDA Under Secretary for International Affairs and Commodity Programs Richard T. Crowder, members include heads of the Agricultural Stabilization and Conservation Service, Farmers Home Administration, Federal Crop Insurance Corp., World Agricultural Outlook Board, Economic Research Service, Soil Conservation Service, Forest Service, the Office of Intergovernmental Affairs, and other key USDA officials. The Task Force meets at least weekly and more often when needed to closely monitor the weather, crop and livestock conditions.

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